CX-1-SM CRYSTALS 10.0kHz to 2.10MHz

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Delivery Options

- Please contact our sales office for current leadtimes

Description

- Statek's CX-1, -1V, -1H range of SM quartz crystals are designed for surface mounting on printed circuit boards or hybrid substrates. CX-1V-SM models are for use in Pierce oscillators. CX-1H-SM models are for use in series oscillators and CX-1-SM are length extensional mode resonators.

Holder Style

- CX-1-SM: hermetically sealed ceramic package.

Terminations

- SM1 - gold plated
- SM2 - nickel solder plated
- SM3 - nickel solder plated, solder dipped

Methods of Attachment

- Vapour phase, wave solder, infrared or silver epoxy.

General Specifications

- Load Capacitance (C_L) CX-1V-SM type:
  11pF (10.0 to < 16.0kHz)
  10pF (16.0 to < 25.0kHz)
  9pF (25.0 to < 55.0kHz)
  8pF (55.0 to < 100.0kHz)
  5pF (100.0 to < 180.0kHz)
  4pF (180.0 to < 614.40kHz)
- Load Capacitance (C_L) CX-1-SM type:
  7pF (530.0 to 2.10MHz)
  Other values available upon request
  CX-1H-SM type is calibrated at Series Resonance
- Static Capacitance (C_0): 1.0 to 2.0pF
- Drive Level CX-1V-SM type
  0.5µW max. (10.0 to < 25.0kHz)
  1.0µW max. (25.0 to 614.40kHz)
- Drive Level CX-1-SM type
  3.0µW max. (530.0kHz to 2.10MHz)
- Drive Level CX-1H-SM type
  1.5µW max. (10.0 to < 25.0kHz)
  3.0µW max. (25.0 to 614.40kHz)
- Ageing: ±5ppm max first year

Operating Temperature Ranges

- –10 to 70°C = C –40 to 85°C = I
- –55 to 125°C = M

Storage Temperature Range

- –55 to 125°C

Environmental Specification

- Shock: 1000g, 1.0ms ½ sine (< 614.40kHz)
- Shock: 750g, 0.3ms ½ sine (530.0kHz to 2.10MHz)
- Vibration: 20g, 10 to 2000Hz

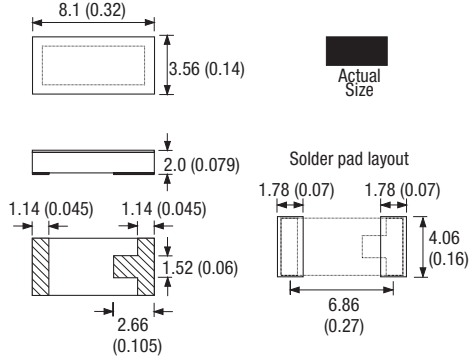
Marking

- Includes Frequency

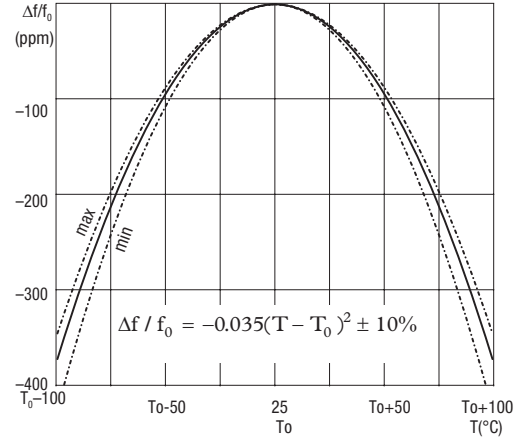
Minimum Order Information Required

- Frequency + Model + Termination + Frequency Tolerance @ 25°C + Operating Temperature Range + Circuit Condition

Outline in mm (inches) - (scale 2:1)



Frequency Temperature Curve - 32.768kHz



Electrical Specification – maximum limiting values

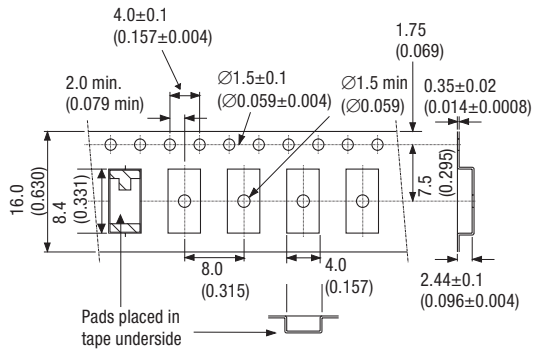
Frequency Range	Frequency Tolerance @ 25°C ±2°C	Operating Temperature Range	*ESR max.	Vibration Mode
10.0 to < 25.0kHz	A = ±30ppm B = ±100ppm C = ±1000ppm	–10 to 70°C –40 to 85°C –55 to 125°C	2.1MΩ	Tuning Fork
25.0 to < 50.0kHz	A = ±30ppm B = ±100ppm C = ±1000ppm	–10 to 70°C –40 to 85°C –55 to 125°C	360kΩ	Tuning Fork
50.0 to < 75.0kHz	A = ±30ppm B = ±100ppm C = ±1000ppm	–10 to 70°C –40 to 85°C –55 to 125°C	160kΩ	Tuning Fork
75.0 to < 170.0kHz	A = ±50ppm B = ±100ppm C = ±1000ppm	–10 to 70°C –40 to 85°C –55 to 125°C	100kΩ	Tuning Fork
170.0 to < 250.0kHz	A = ±100ppm B = ±200ppm C = ±2000ppm	–10 to 70°C –40 to 85°C –55 to 125°C	50kΩ	Tuning Fork
250.0 to < 614.40kHz	A = ±200ppm B = ±500ppm C = ±5000ppm	–10 to 70°C –40 to 85°C –55 to 125°C	25kΩ	Tuning Fork
530.0kHz to 2.10MHz**	A = ±500ppm B = ±1000ppm C = ±10000ppm	–10 to 70°C –40 to 85°C –55 to 125°C	3kΩ	Extensional

Ordering Example 600.0kHz CX-1V SMI C C 9pF

Frequency
Model
Termination
Frequency Tolerance @ 25°C
Operating Temperature Range: C = –10 to 70°C; I = –40 to 85°C; M = –55 to 125°C
Load Capacitance (Circuit Condition) (if non standard)

* Above ESR values are for CX-1H only, CX-1V divide above values by 3.
**Only CX-1 available, ESR for this range is as shown in table
Please note: other frequency tolerances are available on request.

Outline in mm (inches) - Tape



Outline in mm (inches) - Reel (scale 1:5)